



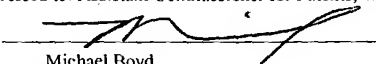
PATENT  
Docket No. 252312006103

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Michael Boyd

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Edward J. VICTORIA, et al.

Serial No.: 10/044,844

Filing Date: January 10, 2002

For: APL IMMUNOREACTIVE PEPTIDES,  
CONJUGATES THEREOF AND  
METHODS OF TREATMENT FOR APL  
ANTIBODY-MEDIATED  
PATHOLOGIES

Examiner: To Be Assigned

Group Art Unit: 1641

**SUBMISSION OF FORMAL DRAWINGS**

Box Missing Parts  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Enclosed are 32 sheet(s) of formal drawings in connection with the above-identified application.

Respectfully submitted,

Dated: April 24, 2003

By: 

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Registration No. 44,546

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ACA Activity Effect of Serum vs Fish Gelatin

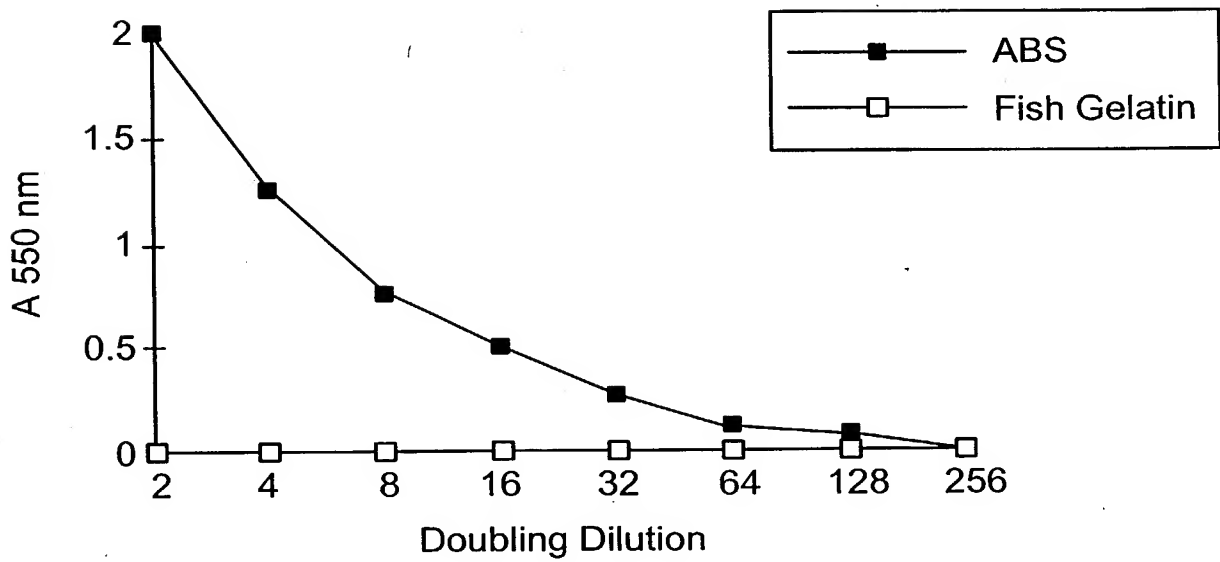


FIG. 1



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES  
Inventor: Edward J. VICTORIA, et al.  
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Immunoreactivity of ACA 6501-5A12 Peptide

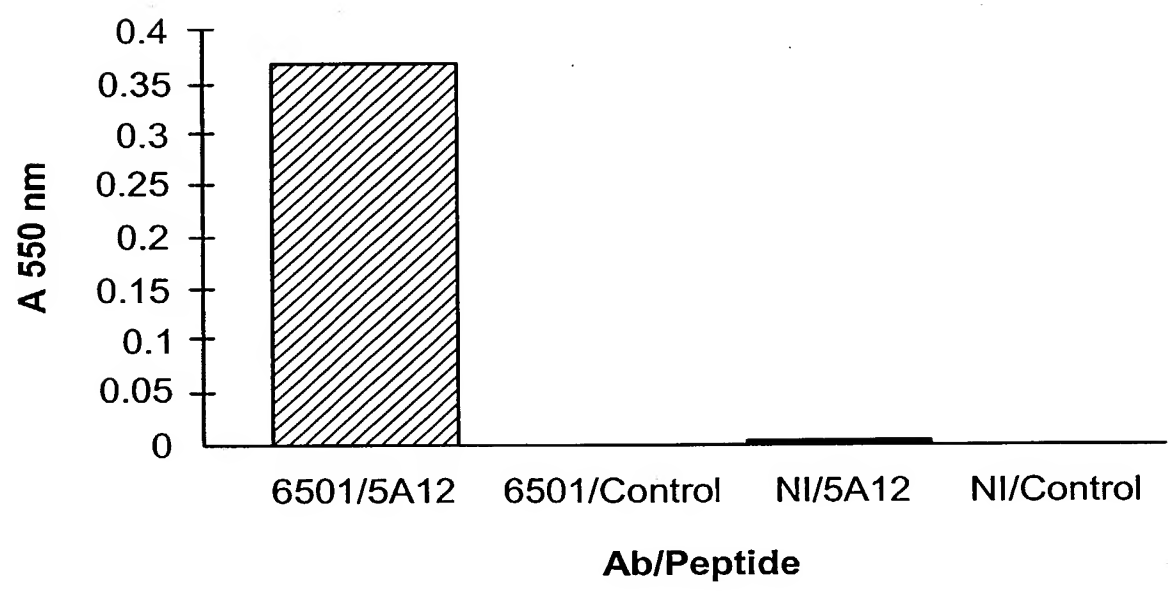


FIG. 2



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES

Inventor: Edward J. VICTORIA, et al.

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### Immunoreactivity of ACA-6626 with Solid Phase Peptides

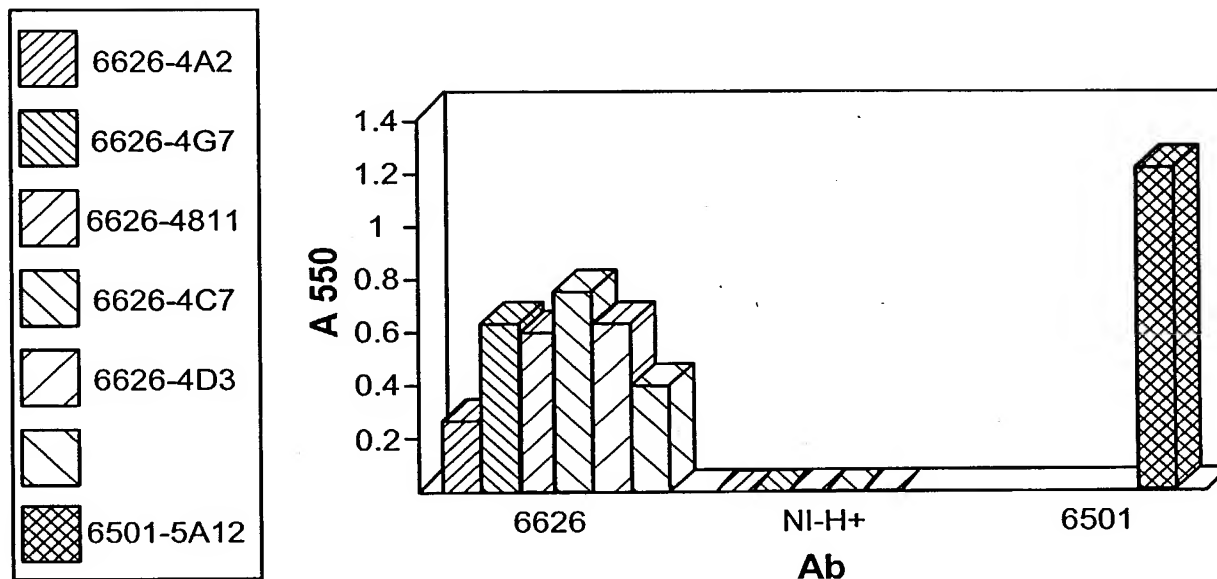


FIG. 3



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### Serum Crossreactivity of ACA 6501-5A12 Peptide

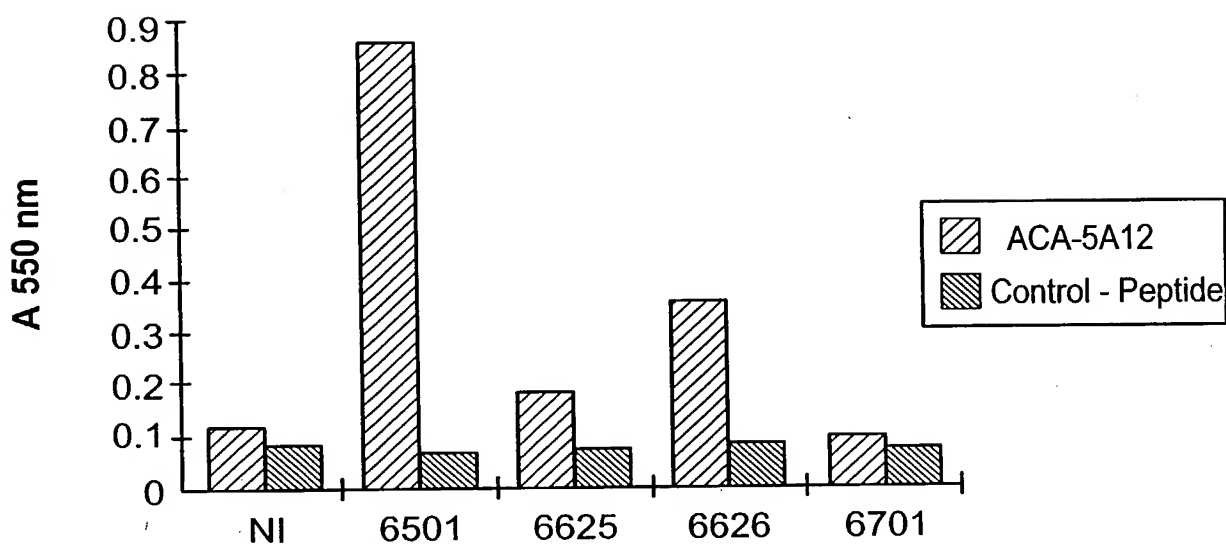


FIG. 4

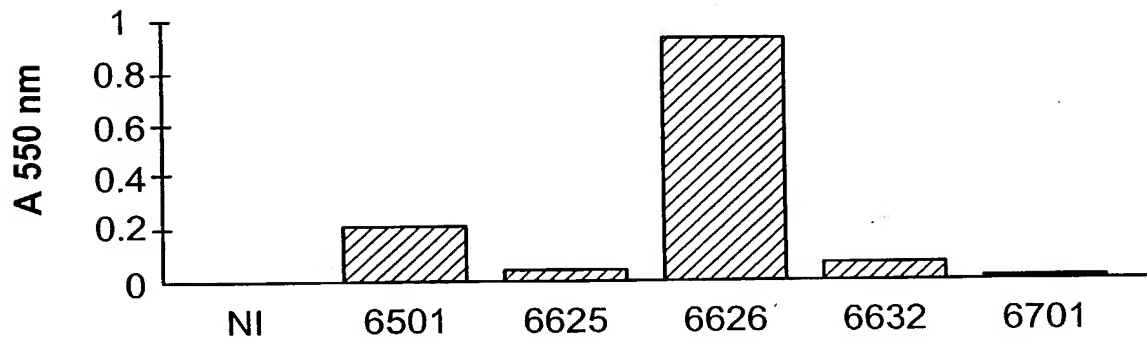


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Inventor: Edward J. VICTORIA, et al.  
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### Serum Crossreactivity of ACA 6626-4D3 Peptide

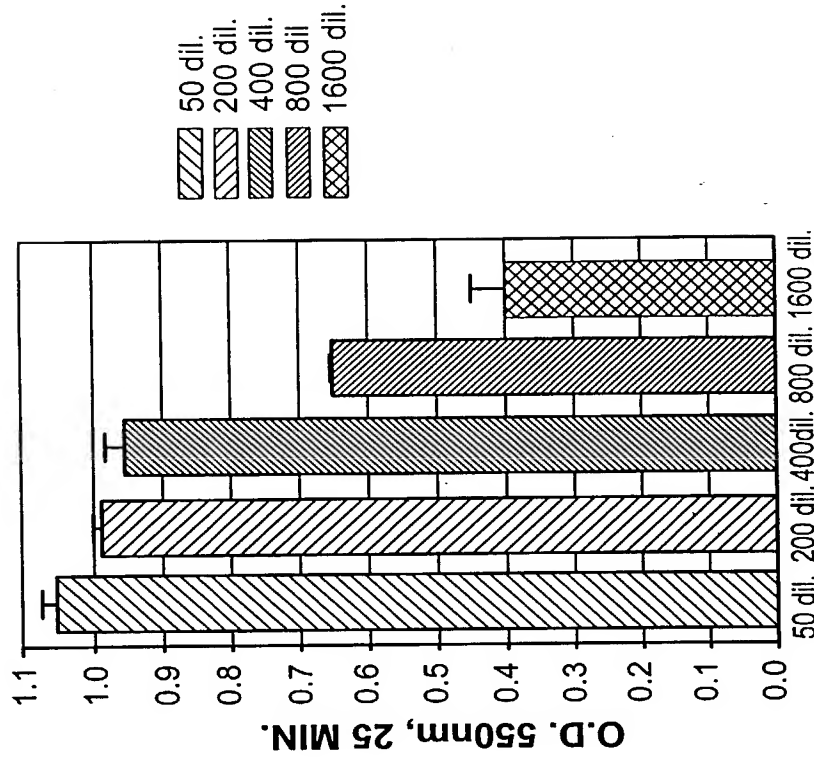


**FIG. 5**



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ACA ELISA of Serum 6501



CALCULATION FOR GPL UNITS IN SERUM  
6501: 1600dil./50 dil. x 70 GPL= 2240 GPL

FIG. 6B

O.D. 550 nm vs. Std. GPL UNITS

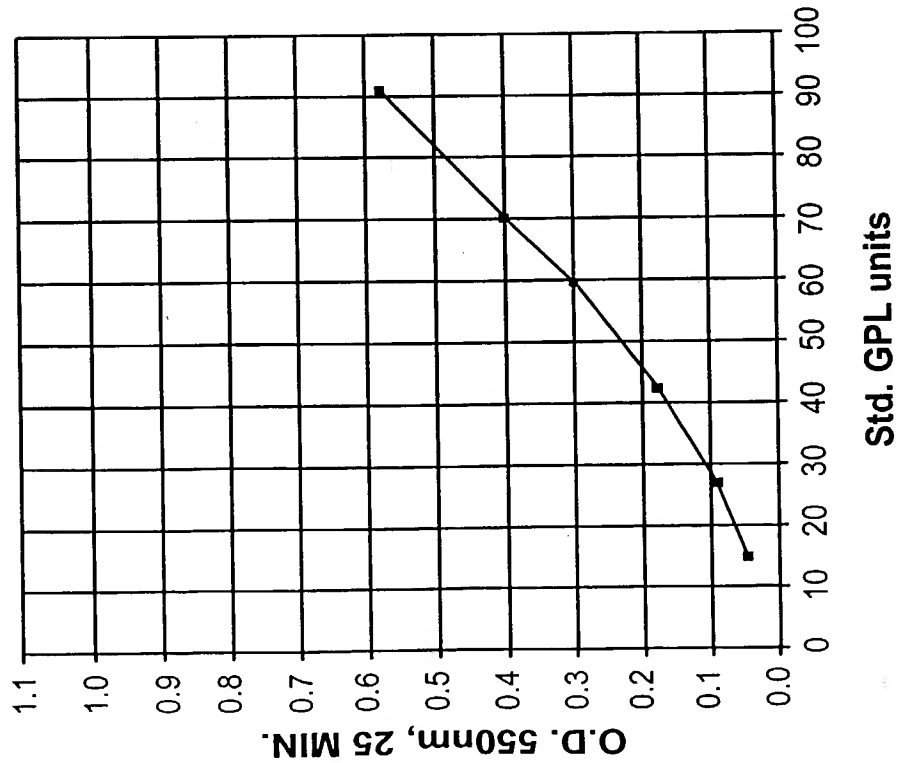
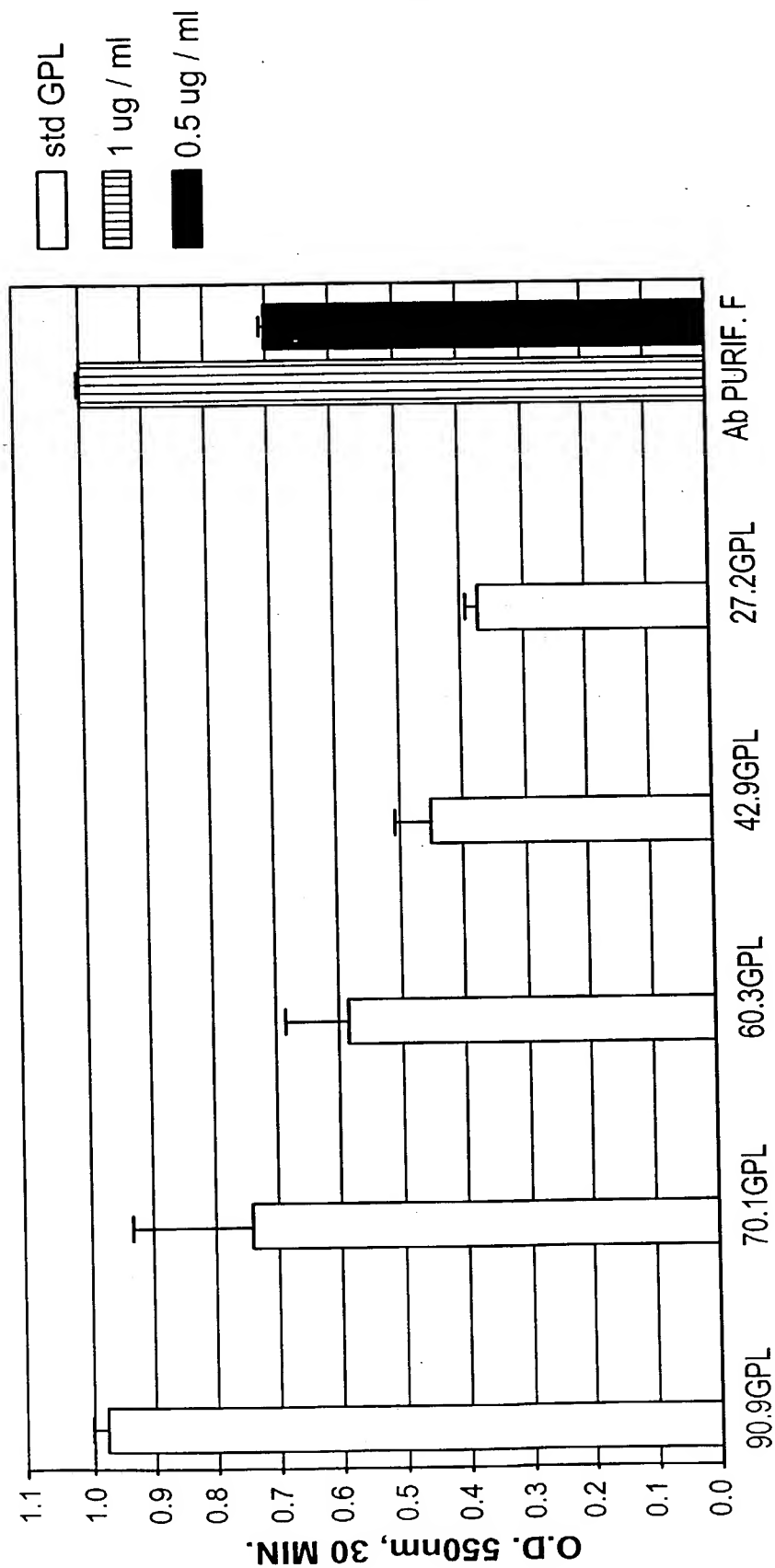


FIG. 6A



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ACA ELISA of Purified Ab fr. Serum 6501



From the graph purified 6501 Ab had 70.1GPL in 0.5 ug / ml  
or 140.2GPL in 1 ug / ml

FIG. 7





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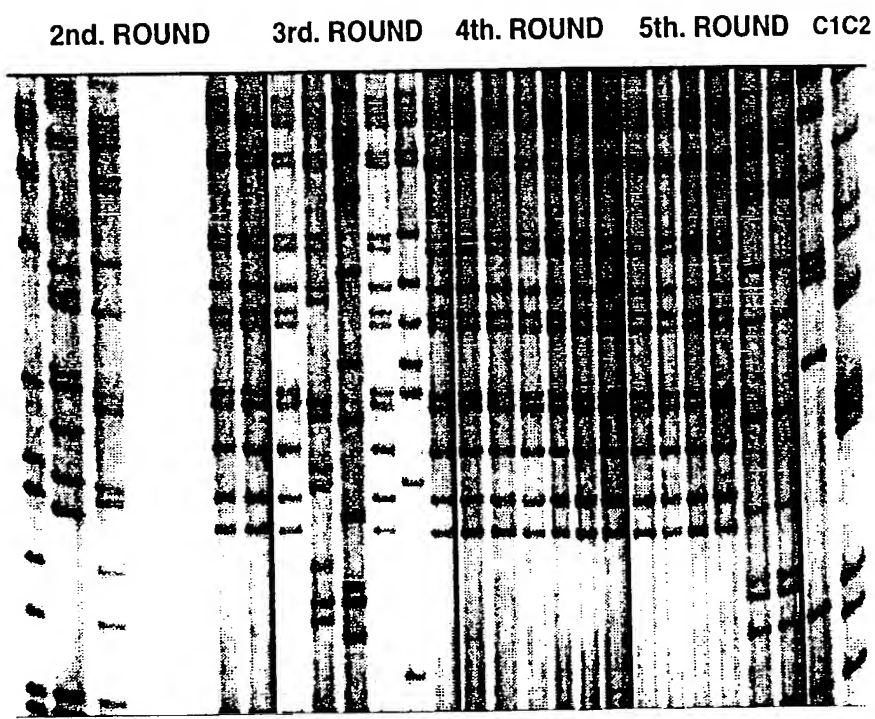


FIG. 8



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$\alpha$

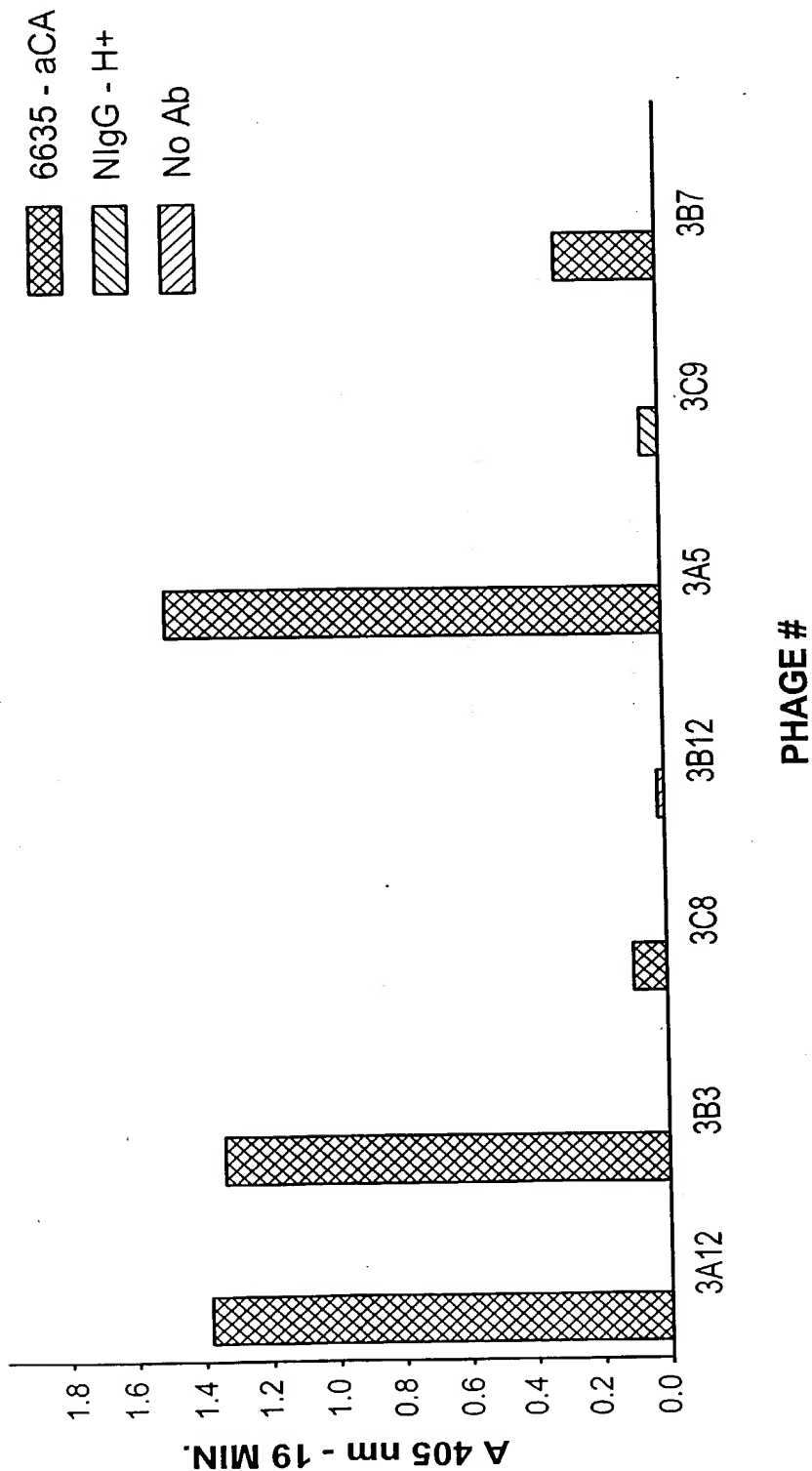
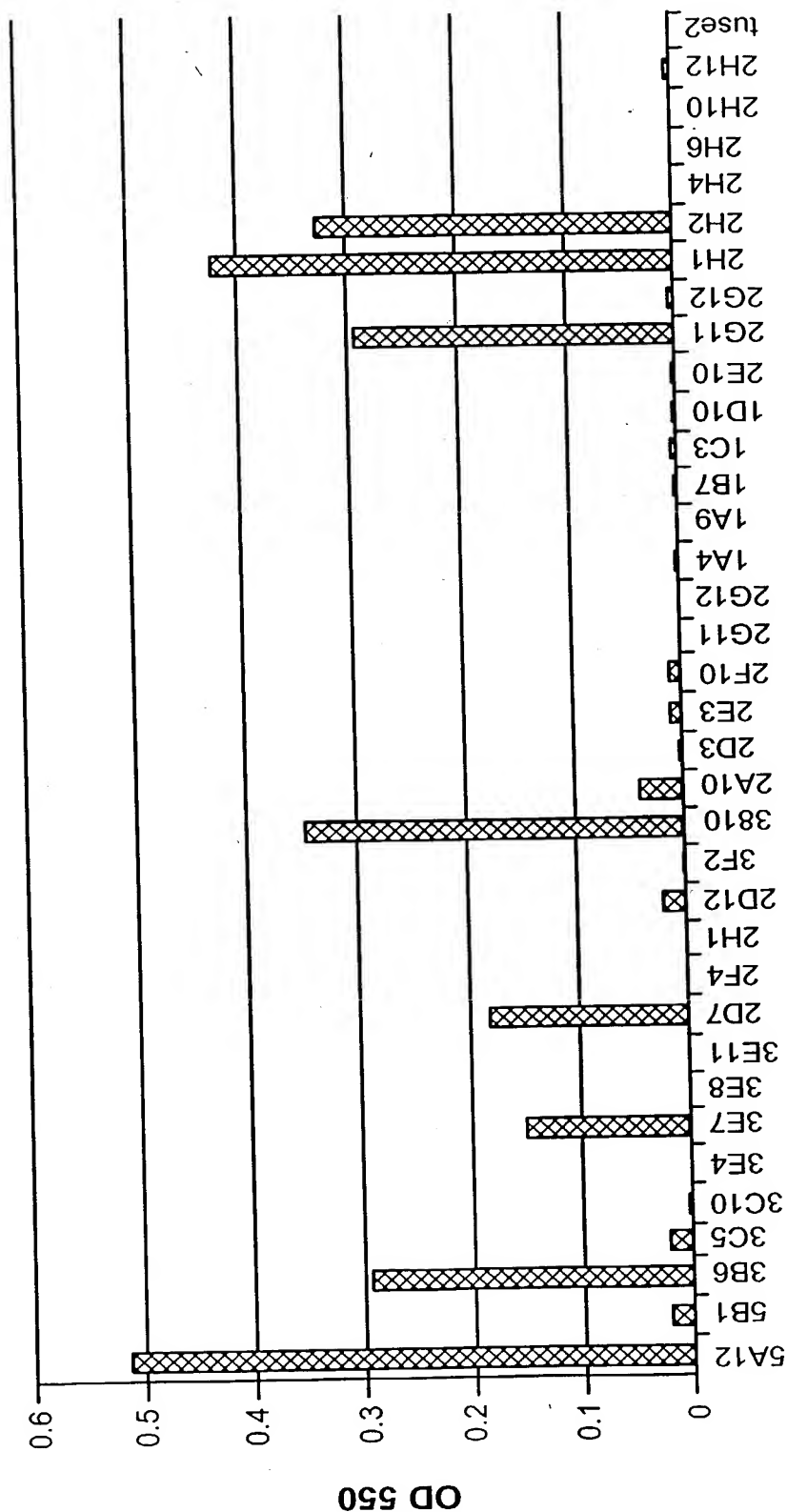


FIG. 9



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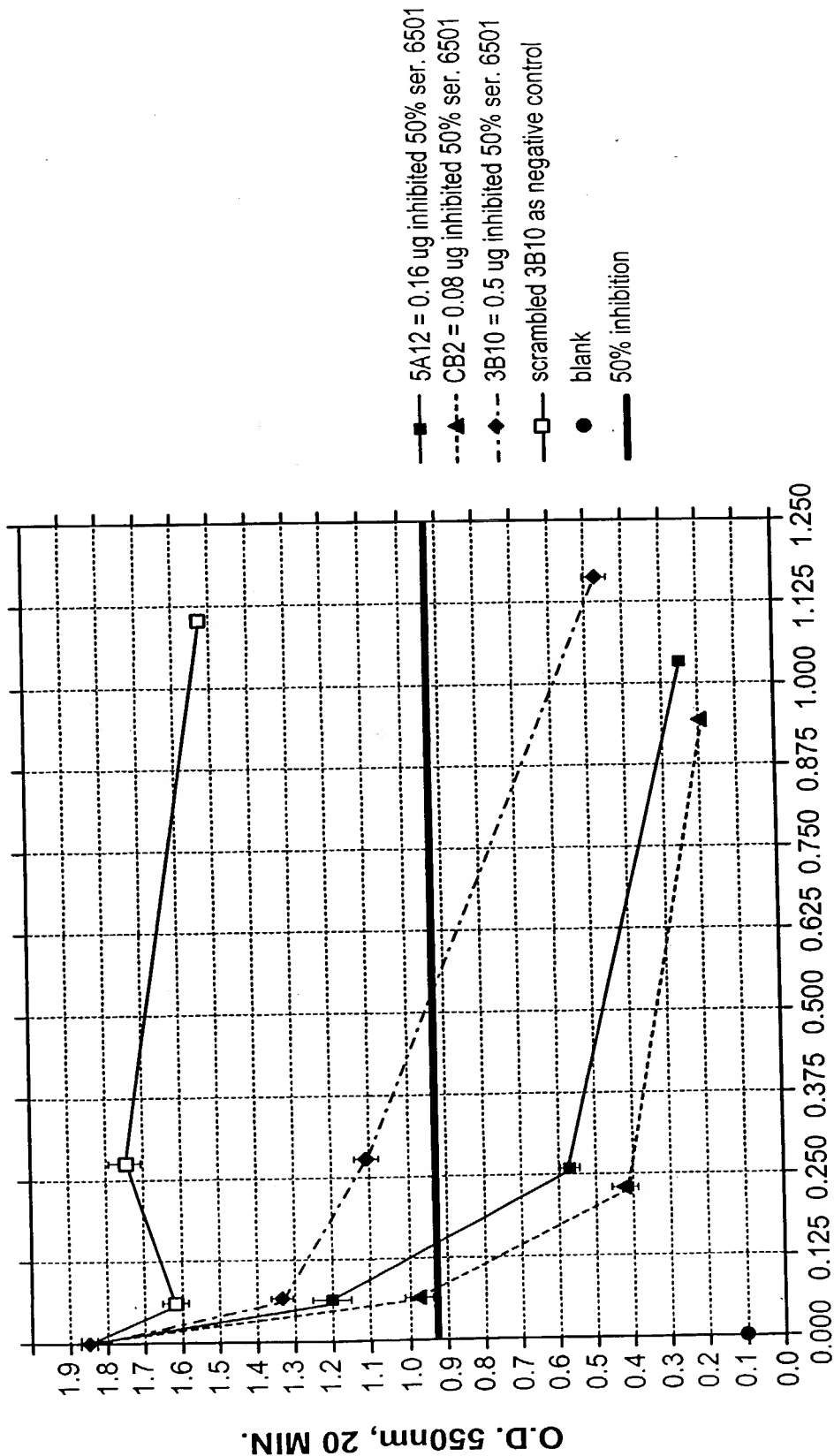
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FIG. 10



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Inhibition of (3B10)4/6501 Derived by 6501  
Derived Peptide Monomer with 400 Diluted  
Ser.6501



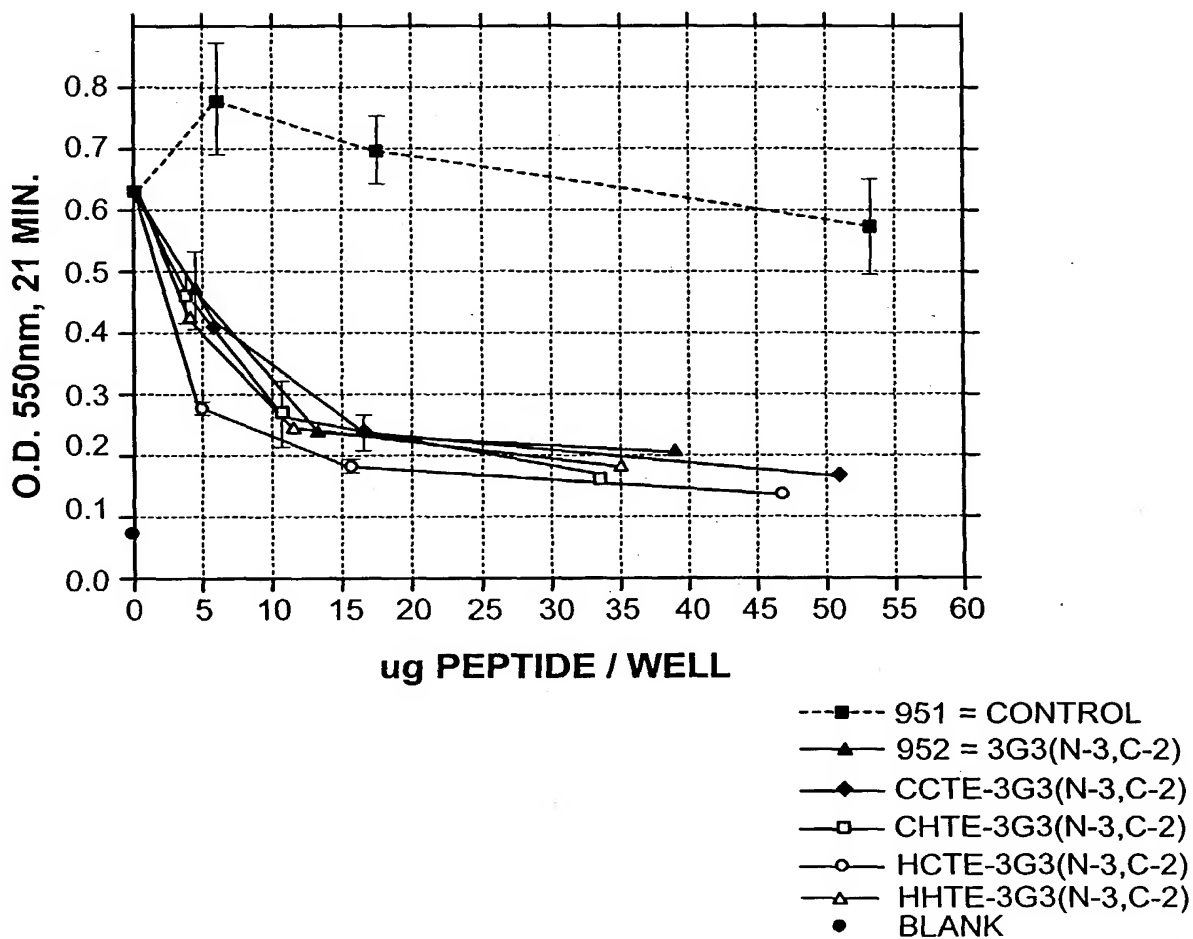
µg PEPTIDE / WELL

FIG. 11



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**Inhibition of Cdl-2.3% Hu Ser.(no IgG) by  
Modified Peptides 3G3 with 400x Diluted  
Serum 6501**



**FIG. 12**

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# Inhibition of (3B10)4/6501 Derived by Truncated or Non-Truncated 3B10 with 400 Diluted Serum 6501

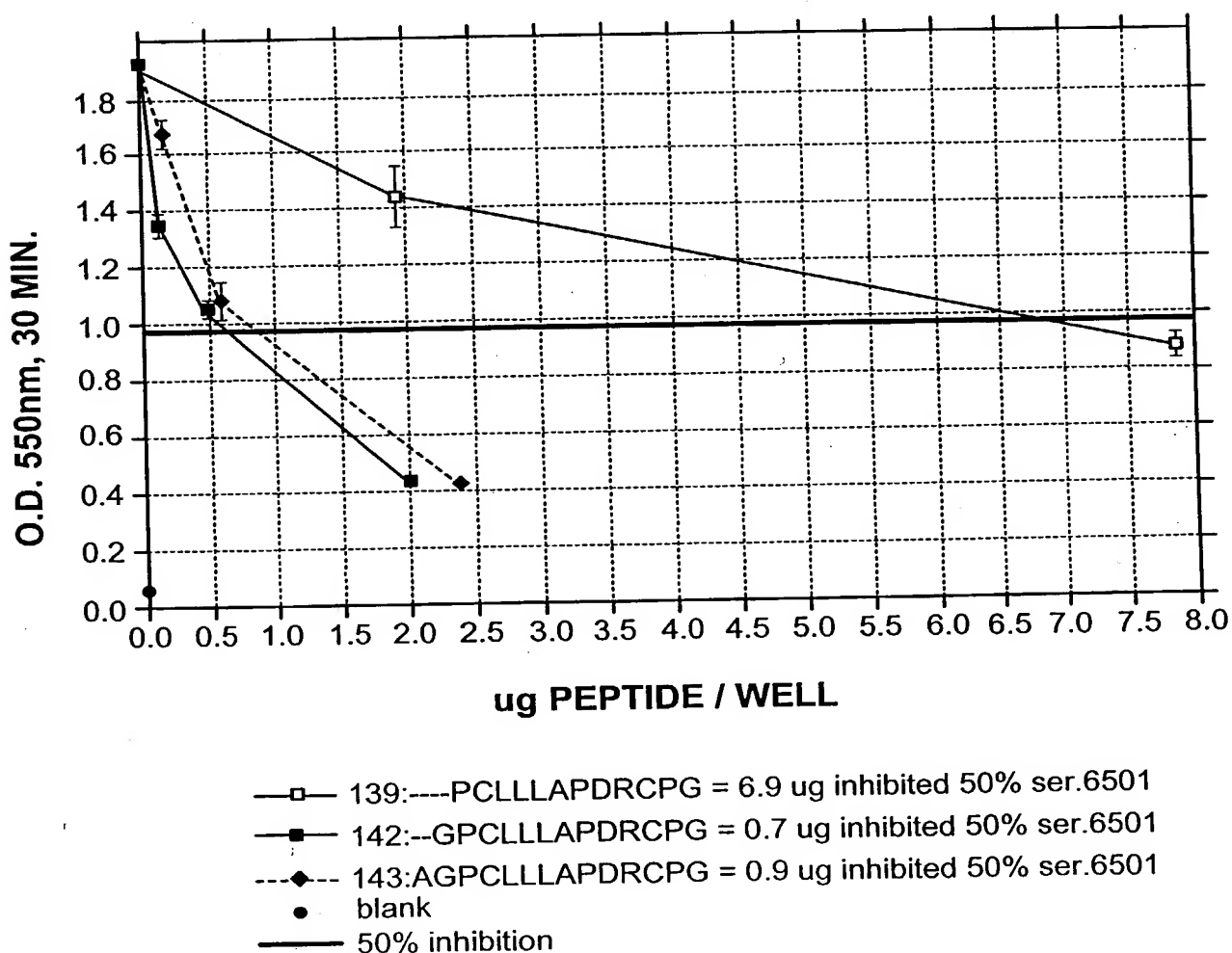
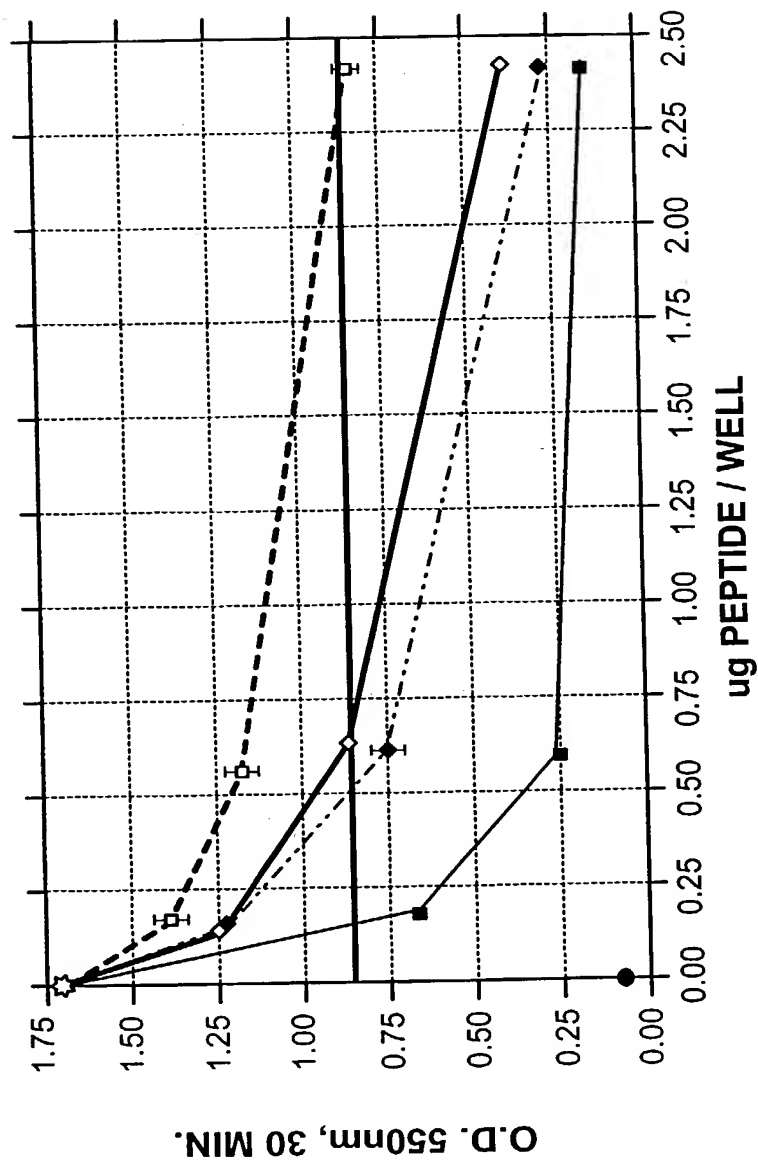


FIG. 13



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Inhibition of (3B10)4/6501 Derived by Alpha MeP 3B10  
Monomer with 400 Diluted Serum 6501



---□--- 726 = AGMePCLLAPDRCPG = 2.25ug inhibited 50% ser.6501  
—■— 727 = AGPCLLAMeDRCPG = 0.125ug inhibited 50% ser.6501  
—◇— 728 = AGMePCLLAMeDRCPG = 0.625ug inhibited 50% ser.6501  
---◆--- 3B10 = AGPCLLAPDRCPG = 0.5ug inhibited 50% ser.6501

☆ no peptide

● blank

— 50% inhibition

FIG. 14



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# Cross reactivity of peptide LJP 688 with aff-ACA

Cardiolipin/ $\beta$ 2-GPI-coated plates

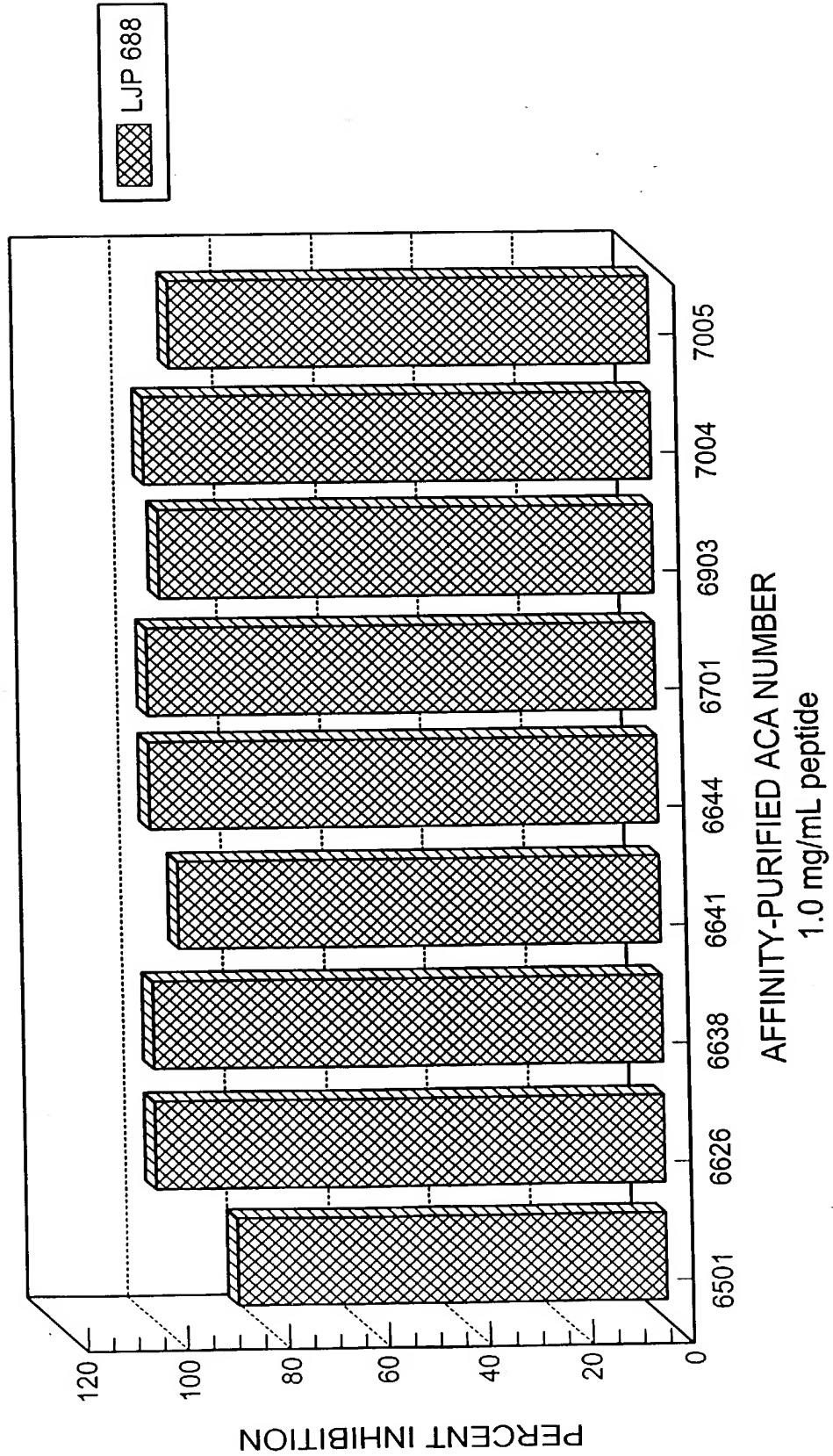


FIG. 15





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LJP 685-MTU-DABA-PEG (COMPOUND 36)

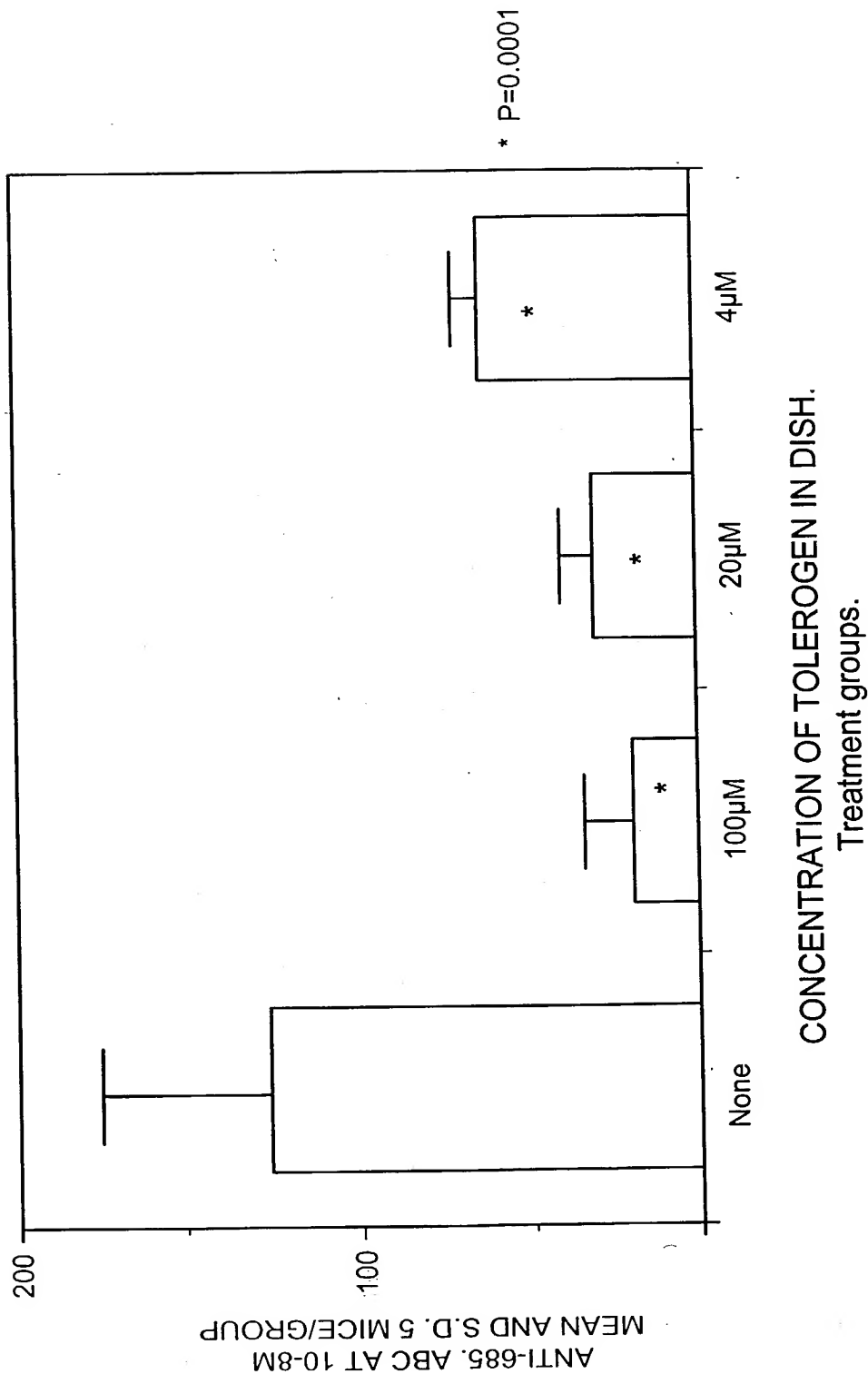


FIG. 16

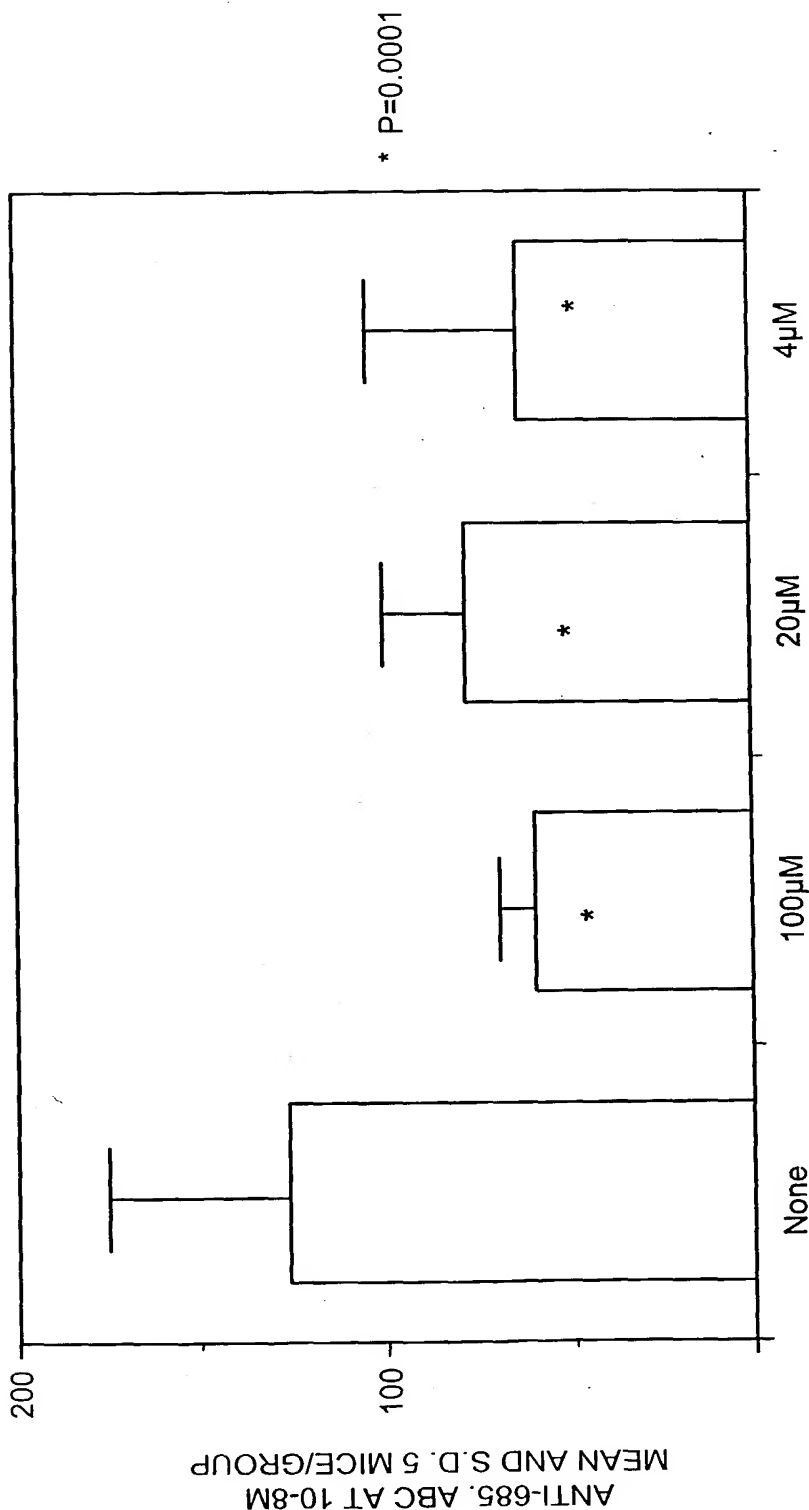


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LJP 685-ATU-MTU-AHAB-TEG (COMPOUND 35)



CONCENTRATION OF TOLEROGEN IN DISH.  
Treatment groups.

FIG. 17



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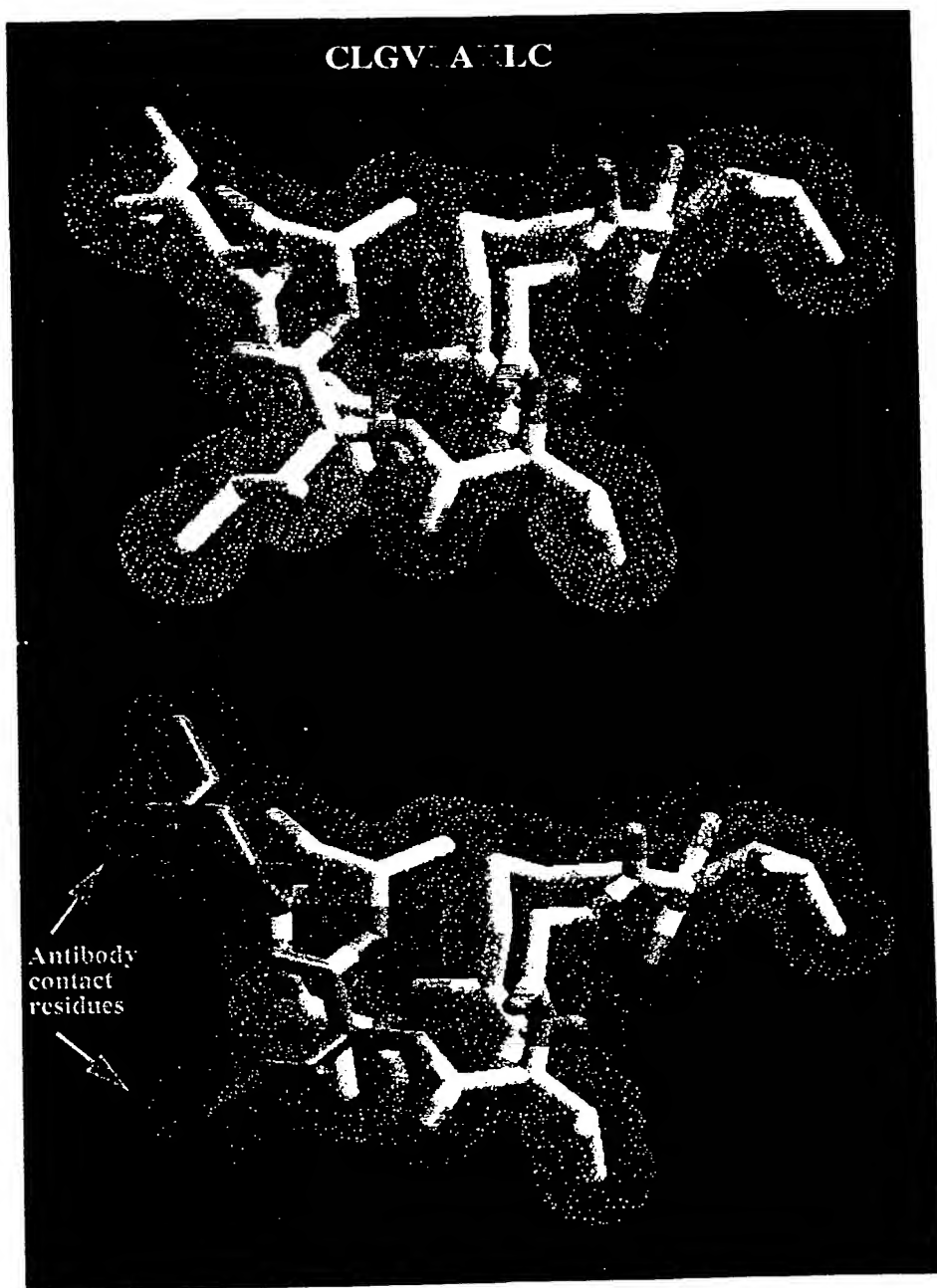


FIG. 18



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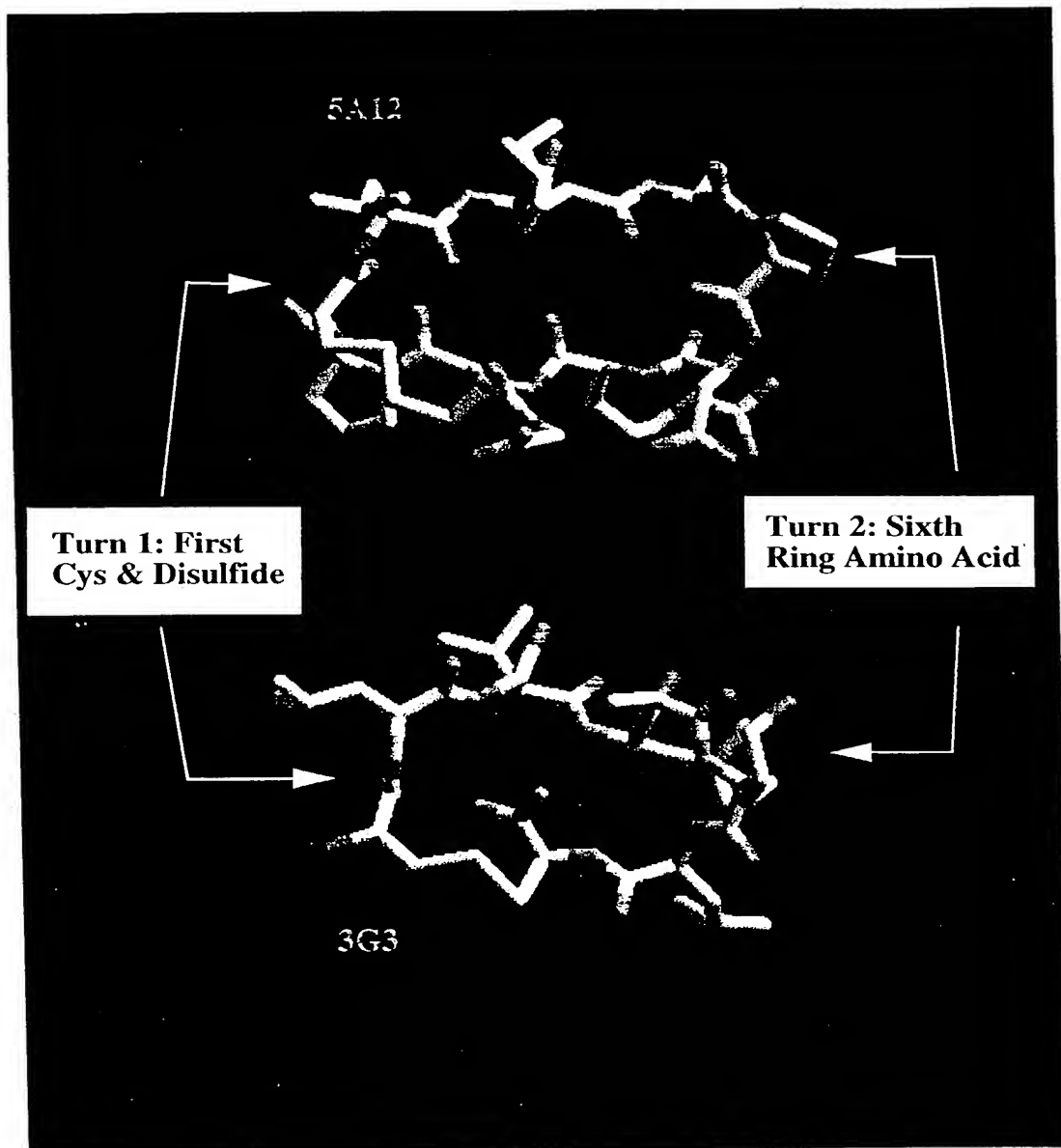


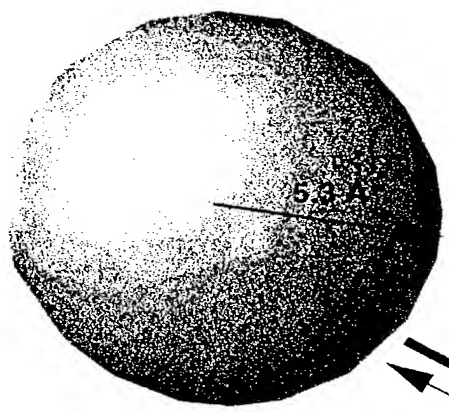
FIG. 19



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Amino or other positively charged group

$$D(1,2) = 22^\circ$$



Gem-dimethyl or other small hydrophobic group



FIG. 20A

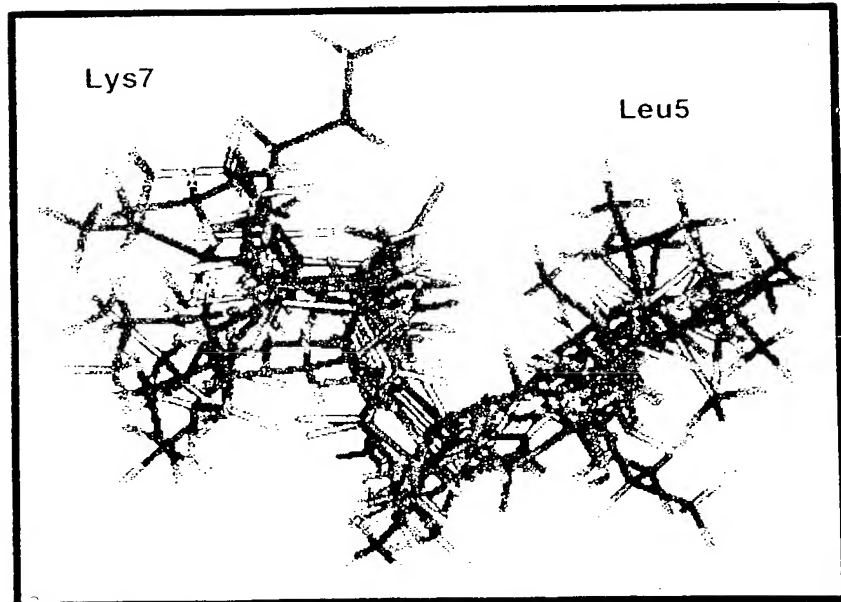
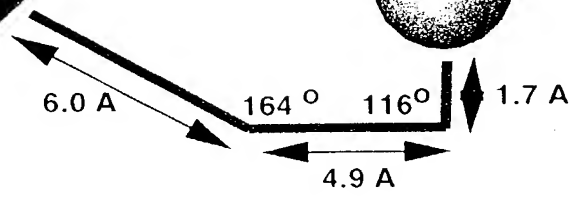


FIG. 20B



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### Inhibition of $\beta_2$ GP-1 by 6501-Derived Peptides with 350x Diluted Serum 6501

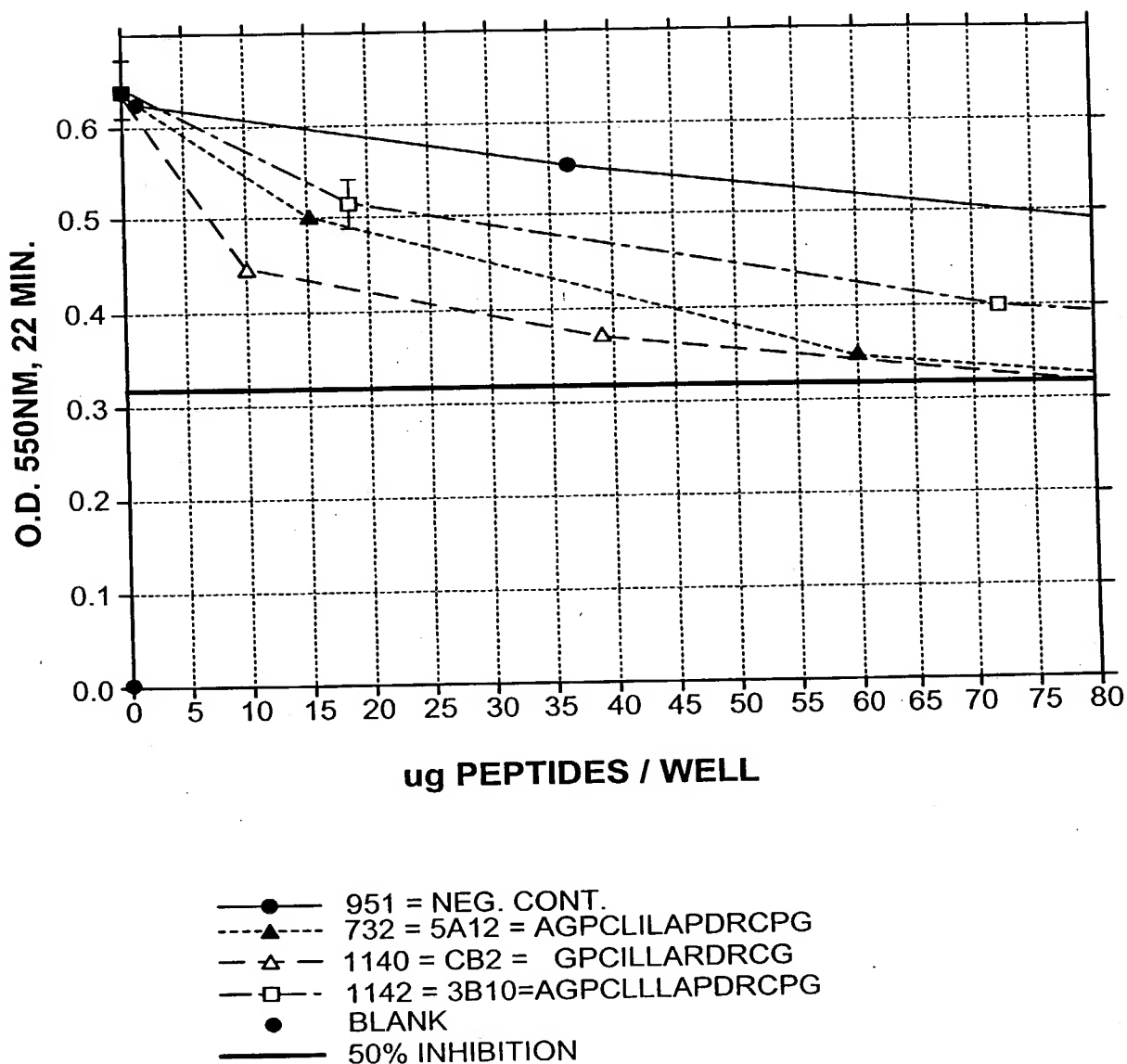
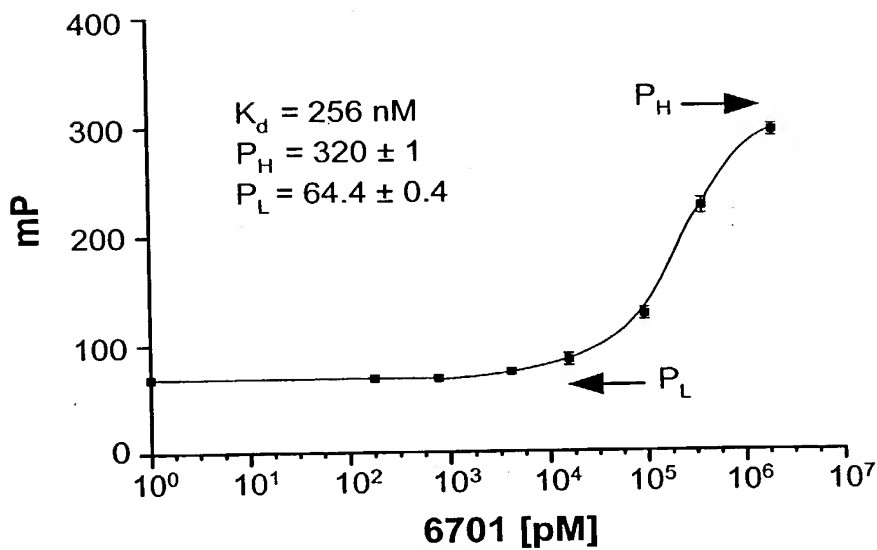


FIG. 21



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**6701 Titration of CB2\*-F:  
(FITC)-GPCILLARDRCG-CO<sub>2</sub><sup>-</sup>**



**FIG. 22**

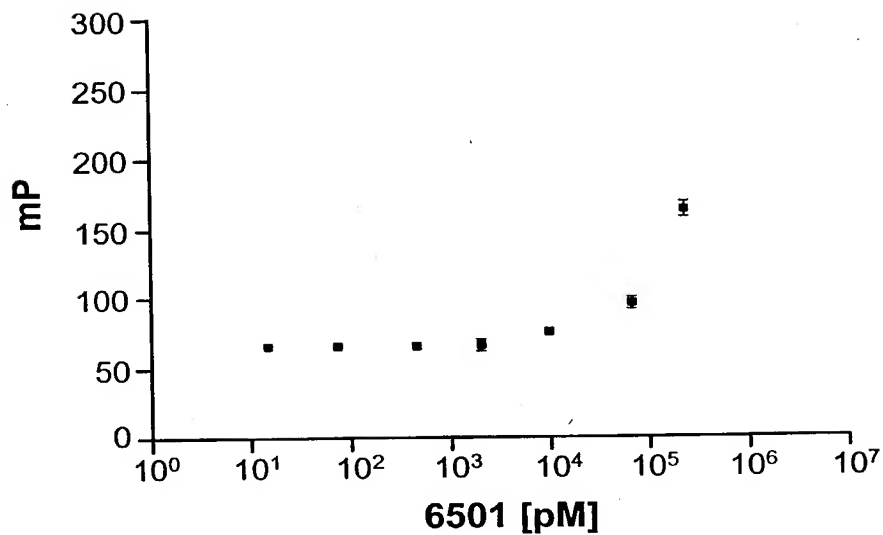


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**6501 Titration of CB2\*-F:  
(FITC)-GPCILLARDRCG-CO<sub>2</sub>-**



**FIG. 23**



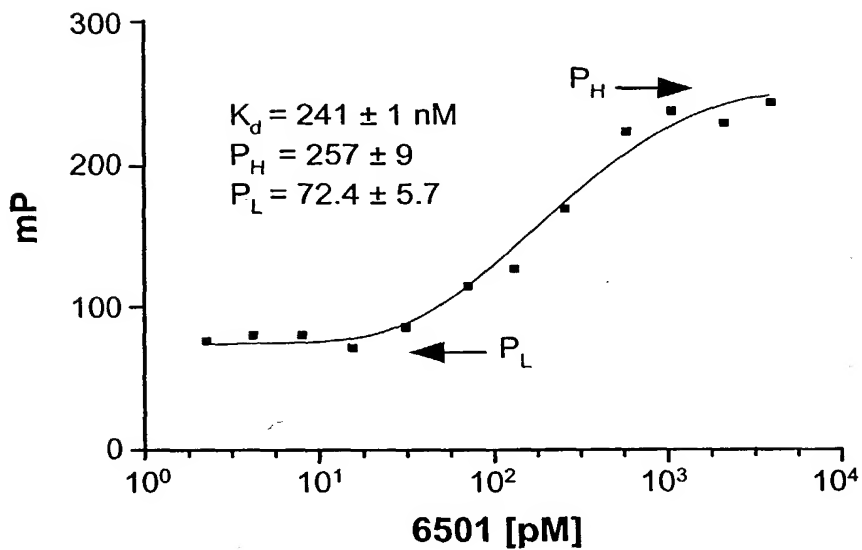


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**6501 Titration of CB2\*-F:  
(FITC)-GPCILLARDRCG-CO<sub>2</sub><sup>-</sup>**

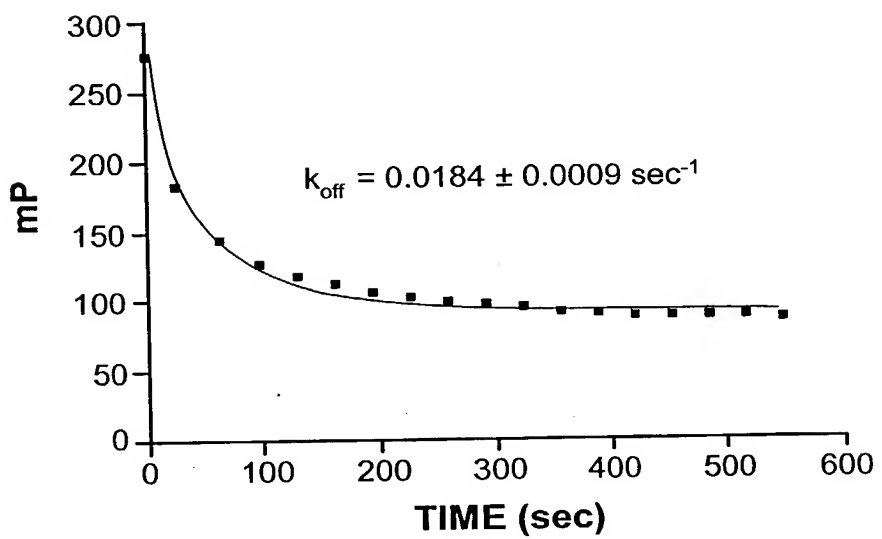


**FIG. 24**

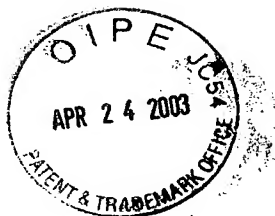


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**Displacement of CB2\*-F from 6701 using 1.04 eq. of CB2\*: GPCILLARDRCG-CO<sub>2</sub><sup>-</sup>**



**FIG. 25**

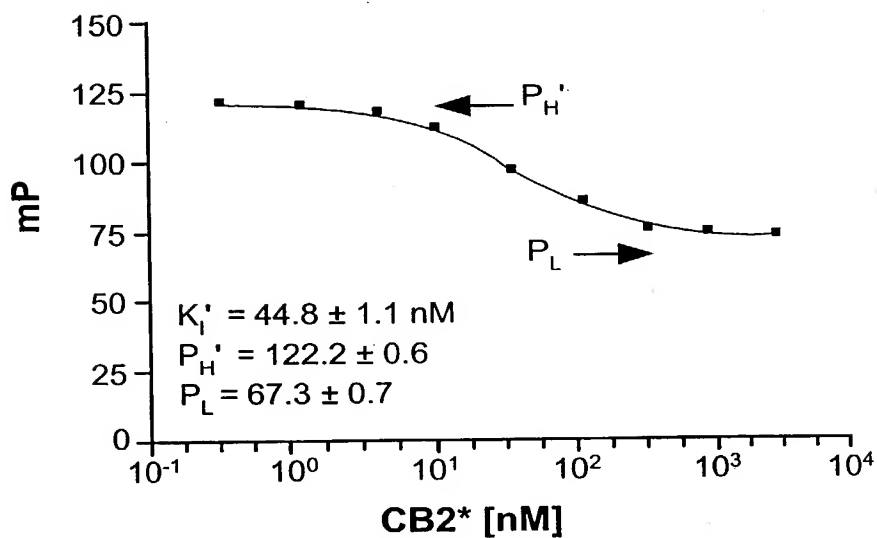


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Inventor: Edward J. VICTORIA, et al.  
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**CB2\* Titration of CB2\*-F/6701:  
CB2\*: GPCILLARDRCG-CO<sub>2</sub><sup>-</sup>**



**FIG. 26**



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**3B10 Titration of CB2\*-F/6701:  
3B10: AGPCLLLAPDRCPG-CO<sub>2</sub><sup>-</sup>**

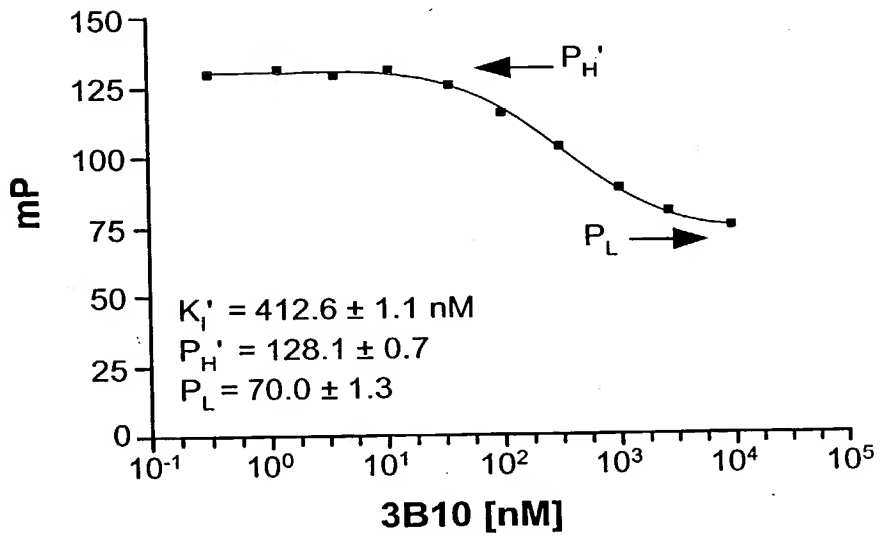
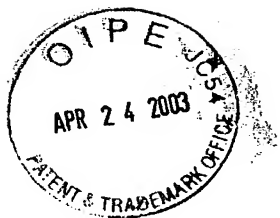


FIG. 27



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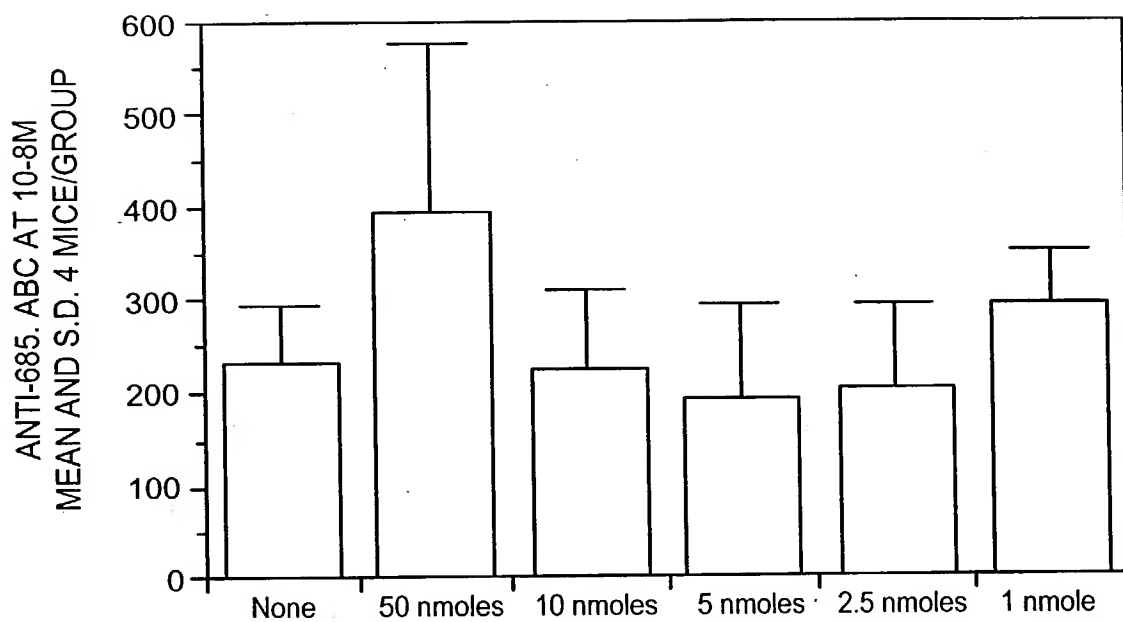


FIG. 28



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES  
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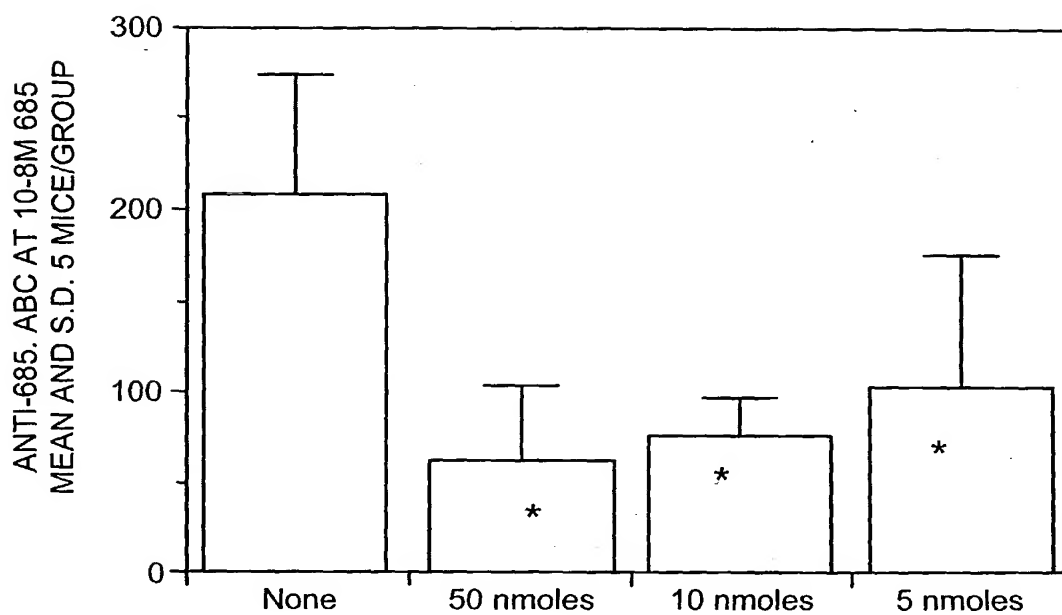


FIG. 29



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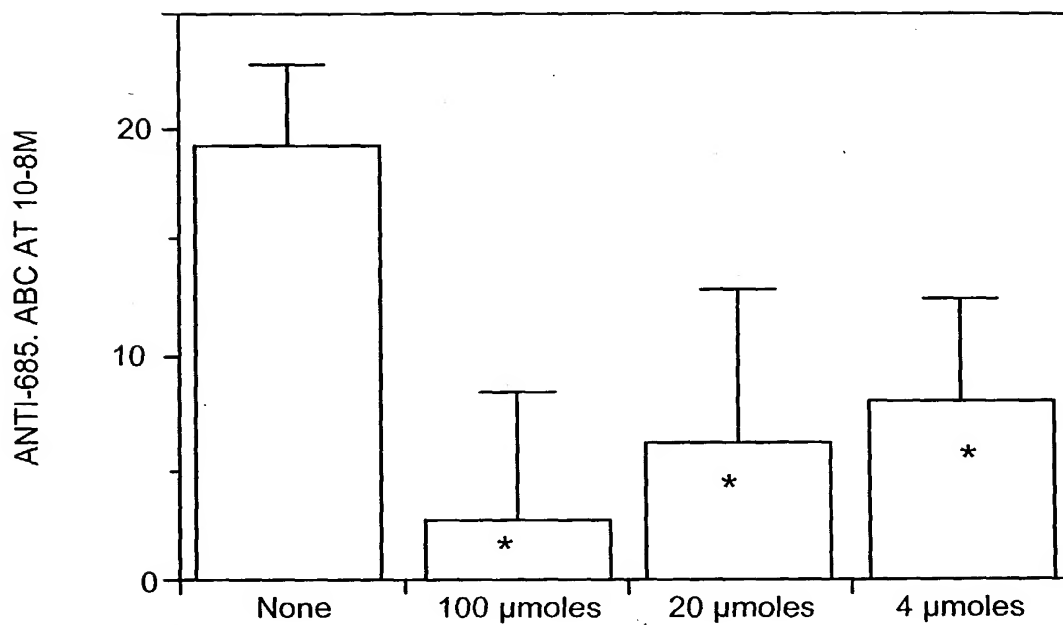


FIG. 30



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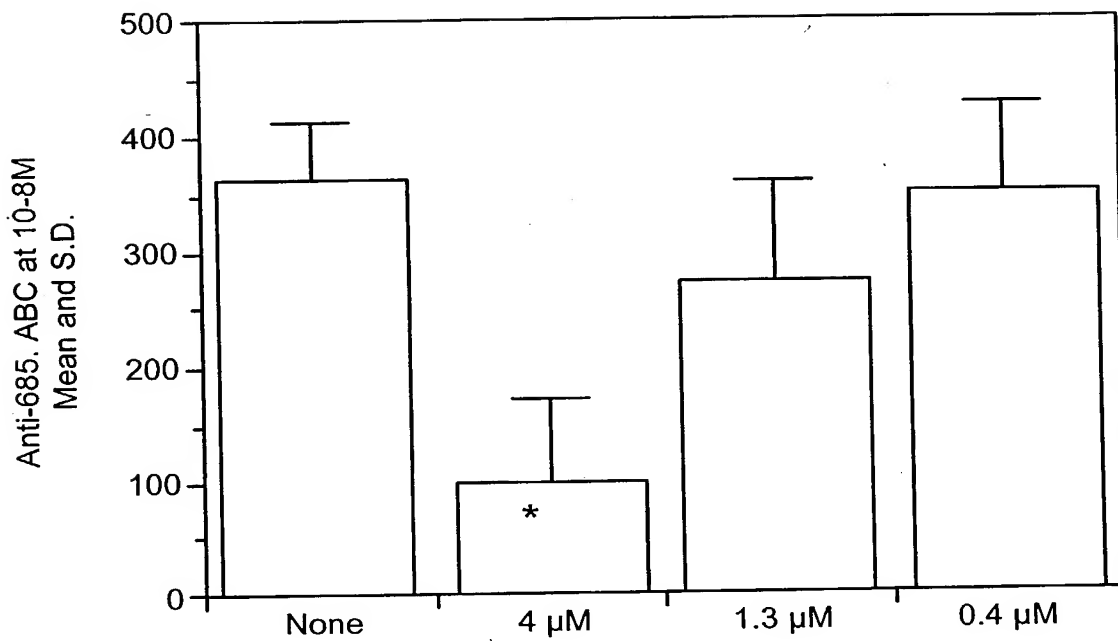


FIG. 31





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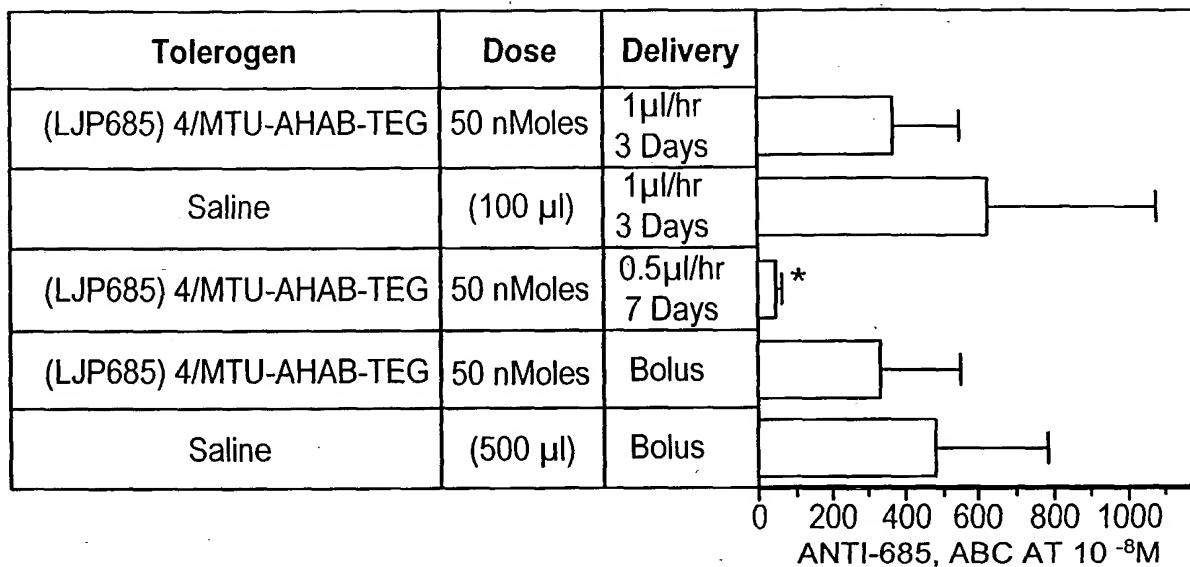


FIG. 32